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# Arms issue dominates Kohl visit to Israel

Frankfurter Allgemeine

Chancellor Kohl's main aim in visiting Israel will surely have been to make some headway in normalising relations between Bonn and Jerusalem.

This was an aim shared by many Germans, including the younger generation that was in no way personally to blame for the Nazi holocaust.

But he can only be said to have failed. The Chancellor's visit was overshadowed by the possibility of German arms supplies to Saudi Arabia.

Since Israel views Saudi Arabia as a hostile state the Israelis again conjured the appalling vision of German weapons, this time in Arab hands, killing or even threatening Jews.

The arms supply issue has intensified discussion of the extent to which Germany, in view of Nazis misdeeds, has a "special historic and moral responsibility" for the well-being of the state of Israel.

Immediately on his arrival the Chancellor sought to sound a personal note in presenting himself as the representative of a new generation of Germans. In 1945 he was a mere 15-year-old.

In Israel such reminders are not well received. They are readily interpreted as a denial of Bonn's special responsibility toward Israel.

This inference is drawn even when a Bonn Chancellor is quick to add that the Federal Republic has learnt its historical lesson and acknowledges this special responsibility for Israel's security.

Even such a calm and collected man as the Opposition's Abba Eban, who in 1965 as Deputy Foreign Minister negotiated the terms by which the Federal Republic and Israel established diplomatic relations, said on Israel Radio there had never been entirely normal relations between the two countries.

Ties had always been limited in some sectors, and Germans arms supplies to Saudi Arabia were, as he saw it, a "violation of historical sensitivity."

There was evidently too great a readiness to believe the past could be forgotten and Germany could behave in the same way as Britain, say, or France,

The word "German" still triggered a feeling of bitterness among Jews that was not prompted by mention of other nations.

The treaty on political and military cooperation signed by Chancellor Kohl in Riyadh last autumn had been an overhasty move.

"Maybe the past will one day lie behind us," Mr Eban said, "but it doesn't yet."

He added that anyone with any sense of history must be appalled by the prospect of German weapons killing or even threatening people in the Jewish homeland.



Israel's Prime Minister Yitzhak Shamir (right) and Chancellor Kohl in Jerusalem.
(Photo: J. H. Darchinger)

The Bonn delegation sought with reference to the new Germany to ease the moral pressure exerted by the Israelis, but the Israelis refused to ease it.

They recalled that the establishment of diplomatic ties with Israel had been part of the German people's atonement to murdered Jews and part of Germany's return to the ranks of civilised nations.

At government level the holocaust might have been forgiven, but it hadn't been forgotten. German arms supplies to Israel's enemies called German atonement to Israel into question.

Bonn replied that the Federal Republic was a major member of the Western alliance and thus had to defend interests of its own in the Persian Gulf.

Besides, Riyadh would be required to give assurances that the weapons would not be used against Israel.

The answer given in Jerusalem was that the delivery of a number of the world's best weapon systems to the

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# Bonn and Jerusalem: tough path to normalisation

Handelsblatt
WIRTSCHAFTS- UND FINANZZEITUNG

The Chancellor's official visit to Israel has clarified matters but cannot be said to have contributed in any meaningful way toward more cordial relations between Bonn and Jerusalem.

They were sub-zero before his visit and are still distinctly chilly.

From the moment he arrived his visit was marked by tension and differences of opinion that overshadowed it throughout in every detail.

Both sides may have made a point of describing the general atmosphere as cordial, but neither Herr Kohl nor his host, Prime Minister Shamir, were able to agree on any of a wide range of issues.

The Chancellor's plan of presenting himself as the representative of a new Germany and another generation of Germans failed to work.

That was not what Mr Shamir wanted to hear. What the Israeli Prime Minister wanted to learn was what arms deals with Saudi Arabia were envisaged.

The Chancellor and his spokesmen denied rumours and reports of arms supplies to Riyadh, but Foreign Office Minister of State Alois Mertes, speaking on Israel Radio, promptly admitted that the deal with Riyadh had been concluded.

It remained only to reach agreement, and negotiations were already under way, on the quantity and delivery dates and categories of arms to be supplied.

Herr Mertes' remarks on negotiations being held between Bonn and Cairo with a view to exporting German arms to Egypt prompted additional displeasure.

Serious clashes were not only limited to German arms deliveries to the Middle East. A well-meaning bid to put Bonn's cards on the table was a further failure.

On the first evening of his visit the Chancellor outlined the concept of German policy on the Middle East, consisting of support for the Palestinians' right of self-determination and the 1980 Venice declaration of EEC leaders on the Middle East and backing for the resolutions passed at the Arab summit in Fez and the September 1982 Reagan Plan for a solution to the Israeli-Arab conflict.

All four are points Israel has repeatedly rejected. Israel feels bound only by the Camp David Agreement, and it was barely mentioned by Chancellor Kohl in Jerusalem.

Little progress was made in the economic sector either. It was neither fortunare nor particularly astute for Israel to call on Bonn to block full EEC membership for Spain until Israel's vital trading interests are safeguarded and full diplomatic ties have been established with Madrid.

Forty per cent of Israel's foreign trade is with the European Community, totalling $4.4bn last year, in the course of which Israel's trade deficit increased by 20 per cent to $1.5bn.

The Chancellor dismissed with a reference to Bonn's own need to enforce budget cuts Mr Shamir's request to beef up German economic assistance from its present total of DM140m a year.

He also dismissed requests for more German investment in Israel with the comment that the German authorities respected the views and interests of private enterprise.

Before leaving, the German delegation reached agreement with its hosts on an interim balance-sheet that despite diplomatic niceties and turns of phrase

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## ■ DATA PROTECTION

# Personal information handled carelessly, Commissioner's report says

Federal data authorities have often been careless in handling personal data, says the Federal Commissioner for Data Protection, Reinhold Baumann. But there has been no deliberate mishandling.

Baumann says in a report that Germany had not become a surveillance state.

But he does say that although the Federal Office for the Protection of the Constitution had tightened its controls, information was still being stored about people who had nothing to do with anti-constitutional movements.

His criticism was primarily directed at the Federal security agencies and at Interior Minister Friedrich Zimmermann's ideas on a revamped federal privacy act.

He wanted more cooperation and information from certain federal authorities. He didn't say which ones.

Reactions to the report varied.

The domestic affairs spokesman for the Bundestag conservatives said that it "set right a distorted picture."

His SPD opposite number said that the report showed that the "persistent controls and counselling of the past few years have resulted in considerable successes."

Baumann said that he had been commissioned by the Bundestag to present

Frankfurter Allgemeine

an analysis of the Constitutional Court ruling on the Census Act before Easter.

He would concentrate on the question whether the ruling meant that an amendment would be needed to proposed legislation covering new forgery-proof ID cards to be issued in November.

The commissioner said he was not in principle opposed to the new cards. But he had urged the Interior Minister to ensure that privacy rights are not violated.

The Interior Minister's draft of a new data protection concept presented last summer not only lagged behind the 1982 draft but also fell short of existing laws on major points, said Baumann.

His report deals at length with federal security agencies including *Militärischer Abschirmdienst*, the controversial military counter intelligence service (MAD) that has come under criticism in the past weeks.

Military counter-intelligence had recognised the justification of recent complaints and has largely acted on recommendations.

Another Bundeswehr security agency, *Amt für die Sicherheit der Bundeswehr* (ASBw), has set up a work group that has meanwhile deleted "several tens of thousands" sets of personal data.

A supplementary "manual card index" has had 500,000 cards removed and destroyed.

The commissioner said he had been told that any future transmission of data to other security agencies would be preceded by checks on authorisation."

He would soon verify the cleanup.

He was already in a position to say that counter-intelligence had an open-minded attitude towards the protective provisions for the handling of personal data and that it would do what was needed.

The *Bundesamt für Verfassungsschutz*, or Federal Office for the Protection of the Constitution, had also become much more careful storing data.

Despite this, Baumann said, some of the internal regulations were still too loose.

His checks had shown that data was still being stored about people who had nothing to do with anti-constitutional movements.

The commissioner also criticised the police which, he said, in a number of cases forwarded data to the *Verfassungsschutz* on a scale incompatible with the provisions on the separation of police and intelligence agencies.

The report rebuts the idea that the *Verfassungsschutz* stores masses of data of people who simply made use of their basic rights. The opposite comes closer to the truth.

The report praises the *Bundesnachrichtendienst* (BND) or Federal Intelligence Agency, and speaks of a "generally gratifying tendency to improve the protection of personal data."

This is shown by a specific but unnamed branch of the operation where an "extravagant" data storage practice of two years ago has been moderated.

But checks have also shown that deletion guidelines have not always been observed and data had sometimes been stored unnecessarily.

Among the questions described as "still open" is the extent of data storing by the BND in connection with "international communism."

The report says that storing of personal data should be restricted to important individuals. Data of all members of relevant organisations should not be stored indiscriminately.

The matter is being discussed with the BND.

(Frankfurter Allgemeine Zeitung für Deutschland, 25 January 1984)



# Bonn, Jerusalem

Continued from page 1

conveyed a clear and realistic picture of the situation.

In military and foreign policy terms Bonn and Jerusalem came no closer. In all talks the Israelis referred to the tragic events of 1933 to 1945.

Chancellor Kohl wanted to end references to Auschwitz and Dachau, Israeli observers felt.

The bridge spanning different viewpoints is still a weak one. The Chancellor, his advisers and aides were often impatient, brusque and displeased.

They made it clear only too often that the visit to Israel had taken a course entirely different to what had been planned, prepared and expected in Bonn.

What is more, considerations is already being given behind the scenes to ways of compensating Israel for the German arms deal with Saudi Arabia.

There can be no question of German arms exports to Israel, but there is talk of long-term licenses, know-how and application of German technology.

But in the short term relations between Bonn and Jerusalem must still withstand serious strain.

*Joseph Canaan*
(Handelsblatt, 30 January 1984)

# Big police dragnet operation 'was not illegal'

A huge security operation during which 75,000 car registration numbers and details of drivers and passengers were checked in Rhineland-Palatinate was legal, according to the *Land* Commission for Data Protection.

It ruled that information collected during Operation Dragnet was not data under the terms of data protection provisions.

But the Opposition Social Democrats in the State assembly said the dragnet, late last year, was illegal.

They said this came on top of the earlier establishment of a police documentation system dubbed POLDOK which led to the setting up of an inquiry commission in Mainz.

POLDOK, introduced in connection with the anticipated "hot autumn" because of protests against nuclear weapons, contained, among others, the names of mere witnesses, one of whom was the chairman of the Palatinate SPD.

SPD Assembly Member Scharping said that the Commission was set up to safeguard people's right to decide what happens to personal data without hampering the fight against crime.

The SPD said it was intolerable that people should find themselves in search lists only because they had driven a car between 11 p.m. and 4 p.m.

It described the police action, in which the states of Hesse and Saarland refused to participate, as an imposition.

The dragnet was made after by bomb attacks on military installations in Rhineland-Palatinate.

State Interior Minister Böckmann defended the operation, saying that people had to put up with having identity established.

He said that after the attacks on the two installations (in Hahn and Bad Ems) and a general situation described by the police as disquieting it was justified to ask: What else must happen to permit the police to proceed with its work and avert danger?

The minister said that the operation had produced useful information.

(Frankfurter Allgemeine Zeitung für Deutschland, 24 January 1984)



The military counter-intelligence service, MAD, (*Militärischer Abschirmdienst*), is the organisation that supplied the information which led to the dismissal of General Günter Kiessling.

It is alleged that the general frequented homosexual bars in Cologne.

Affairs of various kinds have continued to beset MAD, with the result that four heads of the organisation have rolled in the past six years.

And not only they have been sacked; the MAD seems to be an increasingly serious security risk for the Defence Minister.

In 1978 Social Democratic Defence Minister Georg Leber was first to be forced to resign in connection with illegal bugging by MAD officers.

Everyone has some trauma or other. So does the MAD. On 23 September 1968 a darkroom worker at a Bonn photographer's made a startling discovery on a Minox film he was developing.

It contained harmless holiday snapshots and shots of top-secret Nato documents. The film had been brought in by Admiral Lüdke, who worked at Nato headquarters.

The admiral was responsible for reinforcements and supplies, so he had ample access to classified information. The Bonn CID were tipped off; they referred the matter to the MAD.

They seemed to be petrified. Nothing was done. Time went by — invaluable time in which the admiral, if he was a spy, could dispose of evidence.

On 8 October 1968 he was found in the Eifel hills, near Bonn. He had been shot and was officially claimed to have committed suicide, but the records sound a note of doubt.

It would have taken a striking feat of acrobatics for Admiral Lüdke to shoot himself with his rifle. No-one ever found out whether he had really been a spy either.

The agency was bound to be accused of having shown too much respect for his rank. The Lüdke trauma must definitely be borne in mind in connection with the Kiessling Affair.

Intelligence agencies may have shortcomings of many kinds, but a poor memory is not one of them. Mistakes, their own and those of other agencies, are evaluated and filed forever.

The MAD had no intention of repeating its Lüdke mistake. Never again was it going to lay itself open to charges of not having done a proper job for fear of senior officers.

The pendulum swung in the opposite direction. General Kiessling was dealt with by an agency unimpressed by his four stars and determined to work on regardless. Has it overdone it again?

It will be a while before the full details of the Kiessling Affair have been clarified, but it is already clear who one of the losers will be. It has dealt a serious blow to the MAD's prestige.

A succession of unpardonable mishaps has made the agency a risk factor for Defence Minister Manfred Wörner. The smouldering MAD crisis, which has already cost one Defence Minister his portfolio, has come to a head again.

The MAD is the country's smallest intelligence agency. The Bundesnachrichtendienst in Munich and the Verfassungsschutz, also in Cologne, are larger.

It has a staff of about 2,000 and a budget that is classified information but probably amounts to about DM120m.

It has groups operating in all six Bundeswehr area commands and units in all garrisons, including one that covers Bonn and German Nato staff.

Its task is "to protect Bundeswehr manpower, installations and equipment from espionage, sabotage and attacks by security risks and to take appropriate preventive measures."

## ■ SECURITY

# Kiessling episode latest of the many MAD affairs

The MAD was long felt to be a small but high-grade outfit. For 22 years its shortcomings were kept to within reasonable limits.

It was usually given a favourable mention for its work in unmasking spies, but in 1978 its dirty tricks department was found merely to have kept its activities under wraps longer and more effectively than other intelligence agencies.

Defence Minister Leber was under attack in connection with the Lutze espionage affair, the most serious case of treason in the history of the Federal Republic of Germany.

The MAD has slipped up in its security checks, and when it transpired that the agency had bugged the Minister's secretary Herr Leber was questioned by the Bundestag.

Having been misinformed by the agency, he unwittingly misled the Bundestag about other cases of bugging. It then turned out that MAD agents had bugged suspects in circumstances that could only tenuously be termed legal.

Herr Leber resigned. The crisis began. And the MAD gained an unenviable reputation for getting through its commanding officers faster than other agencies.

At the Bundesnachrichtendienst, which has been in operation in its present guise for 27 years, only the fourth man is in charge.

Reinhold Gehlen was succeeded by Gerhard Wessel and Klaus Kinkel by the present incumbent, Eberhard Blum.

The Verfassungsschutz has been in business for 33 years. Its present head is its fifth, Heribert Hellenbroich. The other were Otto Jahn, Hubert Schrübbers, Günther Nollau und Richard Meier.

Christ und Welt
Rheinischer Merkur

The MAD, also 27, is now into its seventh commanding officer. It was set up in 1956 by Gerhard Wessel, who later took over from General Gehlen at the BND.

He was succeeded by Armin Eck, 1967-71, and Paul Albert Scherer, 1972-77, both of who can be said to have served normal terms.

But the present head, Brig. Helmut Behrendt, is the fourth in six years. Scherer was followed by Helmut Komossa, 1978-80, Klaus Vollmer, 1980-81, and Elmar Schmähling, 1981-83.

Behrendt, who has only held the post since last September, stands a fair chance of being the shortest-serving MAD head ever.

Pundits claim the crisis is largely due to party-political appointments. General Scherer was the first MAD head to owe his job to holding the right party card (he was a Social Democrat).

The SPD government in Bonn suspected the BND in Munich of being too Christian Democrat in its leanings and party-political affiliations.

It mistrusted BND assessments of the military situation. So the MAD began to analyse the situation too (normally a job for the BND).

Reports that were expected to bear in mind the keynote of detente were bound to result in conflict among MAD experts who were more concerned with facts.

Two of Brig. Behrendt's predecessors were sacked because they were unsuitable, one was dropped because he was having an affair with a woman who worked at the Bundeswehr intelligence college in Bad Ems.

Behrendt was head of the college and appointed to succeed him, much to the disgust of many MAD officers, some of whom are rumoured to have been gunning for him.

Insiders hint that the latest affair may have been staged with Brig. Behrendt as the fall guy (and General Kiessling as the tragic hero).

There can be no doubt that General Kiessling did not get on with US General Rogers at Nato, where he was Deputy Saceur. Their bad relations were a well-known fact.

General Kiessling himself complained to Defence Minister Wörner about them. Genral Rogers made diplomatic hints to Bonn. But nothing was done to begin with.

Suddenly the situation assumed fresh urgency. A high-ranking Ministry official reported suspicions that General Kiessling was a homosexual.

The source of the rumour, and whether it was merely part of a bid to find a pretext for replacing General Kiessling, is still unknown. But the MAD went ahead and investigated it.

Part of its work is to identify security risks, and that means more than just unmasking people who have committed espionage or sabotage or stated readiness to do so.

As part of the agency's confidential preventive measures Bundestag officers and men with failings that might be used to make them commit security offences must be identified.

People who are heavily in debt could well be tempted by a cash offer by enemy agents. Criminal offences that have gone undiscovered are another soft spot, abnormal sexual inclinations a third.

Nothing was known about General Kiessling's alleged homosexuality. When first confronted with the allegations he strongly denied them.

The MAD unquestionably had to check and make sure there was no security risk involved. The agency's computer, which has over four million Germans on file, drew a blank.

The general had passed all security checks with flying colours, including checks of his personal acquaintances. If the allegations turn out to be true, then the MAD must have been completely in the dark for decades.

An MAD officer contacted a Cologne CID officer to ask whether the police knew anything about homosexual contacts by a Bundestag soldier named Kiessling.

The answer was no. The CID were asked to check in the city's homosexual haunts. No indication of the reason for the request or the rank of the man in question was given.

Requests for assistance between the police and intelligence must be made to the senior officer, in this case Cologne's chief of police, Jürgen Hosse.

But unofficial contacts have the advantage of leading to faster results, although they are riskier.



**Brigadier Helmut Behrendt, in charge at MAD.** (Photo: AP)

The CID officer had no idea how explosive the affair was. The unofficial approach via a junior MAD official seemed to indicate it was nothing very important.

The enquiries were not carried out thoroughly enough to come up with watertight evidence. A few witnesses, and shady characters too, claimed to have seen Kiessling in gay bars in the city.

Two crucial mistakes were then made. The general was not tailed to verify such allegations beyond doubt, and the MAD beefed up police observations made under mistaken assumptions into a full-scale report.

General Kiessling, it was said, had been definitely identified. Witnesses were ready to come forward. The state CID in Düsseldorf had double-checked. It hadn't. It wasn't involved at all. The reference to Düsseldorf was intended either to camouflage the source or to upgrade and bona fide it.

It succeeded handsomely. Herr Wörner felt he was on safe ground and prematurely retired the general. In view of the report he had no choice.

But the report was based on feet of clay, as it were. The MAD misled not only the Cologne CID officer but also the Bonn Defence Minister.

This will remain the case even if further enquiries prove the truth of the allegations. The decision may then have been right, but not the grounds.

The worst error of all was made after the general had been sacked. High-ranking generals, like high-ranking Ministry officials, can be prematurely retired by their Minister at any time without a reason needing to be given.

It is enough for the Minister not to see eye-to-eye with the official. He makes his recommendation to the President; the President signs the notice of premature retirement.

But after General Kieslling had been retired, MAD officers felt they still had to lend the Minister support. They hinted that he had not just been sacked because he didn't get on with the Minister.

He had homosexual leanings, they said, and was a security risk. That was a reason stated unneccesarily, but if reasons are stated, then at least they must be accurate. From this point on, the quest for proof began.

*Horst Zimmermann*
(Rheinischer Merkur/Christ und Welt, 20 January 1984)

■ FINANCE

# Not enough investment, institutes accuse

Germany has become commercially less competitive and is investing too little, say the economic research institutes.

The reports, commissioned by the Bonn Economic Affairs Ministry, are likely to have shaken government policy makers just as they were starting to rejoice over the looming recovery.

They disagree only on detail. And the picture is disturbing.

Competitiveness has clearly declined. World trade has not, as usual, expanded within the European Community and in the USA but primarily in the Opec countries, Japan and Asia's threshold nations.

German exports to the Far East have barely risen in the last few years. The major export industries, machinery, chemicals and electronics, have suffered disproportionate losses of market shares. Not, however the motor industry.

In the past few years, Germany's ability to produce and market new products has been found wanting.

As a result, the country's significance as a supplier of high-tech and sophisticated goods has clearly declined. Has become a net importer of high-tech products.

Although the National Federation of Industry and the Bonn Research Minister both warn against overestimating weaknesses in some sectors on international markets, the outlook remains disquieting.

There is also little consolation in the fact that other Community nations are even worse off while the USA leads in the field of high-tech and Japan in sophisticated technology.

There are several reasons for this. The main one is inadequate investment.

Only 7.5 per cent of the German GNP goes into capital investment excluding housing, compared with 12 per cent in the early 1960s.

This has led to industrial obsolescence and retarded the rise in productivity, especially in manufacturing.

It is this sector that matters if Germany is to remain internationally competitive without reducing incomes in order to do so.

This should be remembered by those who say that more rationalisation and technology are unnecessary in maintaining living standards.

Several institutes stress that there is no foundation to the widespread fear, often fuelled by the trade unions, that technology and automation destroy jobs.

They point to the fact that the job situation in industries that have been successful in raising productivity compares favourably with industries that haven't.

For instance, no other industry uses more robots than the motor industry.

The number of people employed rose from 727,000 in 1972 to 788,000 in 1982, and not only due to economic developments.

The robots made it possible to produce more "intelligent" cheaper and hence more saleable cars. The same cars would have commanded luxury prices before the robot era.

One of the major obstacles to investment is the decline of profits due to the rise in labour and energy costs.

New production methods sometimes cannot be introduced due to restrictions by the state. This applies, among others, to the new media which are of paramount importance in the development of communication technologies.

Red tape is another deterrent to creating new jobs.

Companies that are prepared to innovate often don't have enough capital, particularly small and medium firms where innovation most often takes place.

It is no coincidence that in Baden-Württemberg, the classical tinker state, small and medium-sized companies are doing a booming business with modern technology.

The difference in interest rates between the USA and Germany is another barrier to investment. It is much more tempting to put money into high-yield US securities instead of risky industrial investments at home.

The reasons for Germany's declining international competitiveness are familiar. It is now up to Bonn to act without causing harm in other sectors.

The trouble, however, is that government activities are regulations interfere with market forces.

Take subsidies: the government's policy is to channel capital into structurally weak sectors such as farming, coal, steel, shipbuilding and the railways.

The subsidies delay structural change, maintain excessive wage levels in entire industries and regions. They thus endanger unsubsidised companies that would otherwise be competitive. Tax laws are also not exactly helpful in raising risk capital for innovations.

The Chancellor has repeatedly said that he is to push policies to promote innovation.

There is no shortage of recipes, especially from the Economic Affairs Ministry. But the mills of bureaucracy grind slowly. The oft-mooted tax reforms are evidently more difficult than anticipated.

Instead of this spring, it will take until summer before private taxpayers and business will learn what relief they can expect and when.

Part of the envisaged tax reform is the reduction of subsidies. The mere restriction of the *Bauherrenmodell* for housing construction and other write-off practices will not do the trick.

The Finance Minister will have to deal with the unpleasant task of reviewing a number of other privileges taxpayers have grown fond of.

There is also still the problem of making it easier for small and medium sized companies to obtain risk capital.

Many banks are reluctant to lend DM100,000 or DM200,000 to people wanting to go into business.

But they willingly provide additional millions for large and inert companies.

Bonn cannot influence this.

What it can do is to make it easier for small companies to go public. The government should also seek ways and means of making it more attractive for the man-in-the-street to sink his money into risk ventures.

Helmut Kohl's intention to solve the European Community's problems together with French President Mitterrand could also revive the idea of Franco-German cooperation in developing top grade new technologies. This, too, would help.

*Fides Krause-Brewer*

(Rheinischer Merkur/Christ und Welt 20 January 1984)

**The changing path of the dollar**
**measured against the DM**

Since Sept. 1949 — 4.20
March 61 — 4.00 — DM revalued
October 69 — 3.66 — DM revalued
August 71 — 3.42 — Dollar comes off gold standard
December 71 — 3.22 — New exchange rate system
February 73 — 2.90 — Dollar devalued
March 73 — 2.83 — Floating DM/$ link
3. Jan. 80 — 1.71 — Dollar hits bottom
81 — 2.26 — Reagan president
82 — 2.43 — High US interest etc drives dollar up
5 January 19.. — 2.70

# Little chance that dollar will tumble

Forecasts about what will happen to the dollar this year vary widely from DM3 or more to as little as DM 2.50 or less.

Dollar pundits have become more cautious. And a major commercial bank believes that the dollar will no longer profit from all sorts of "fashionable fears." Instead, international money will once more flow into countries with a fundamentally stable currency.

In any event, it would be wrong to count on a tumbling dollar in the near future.

Since 1945, the dollar has both declined slowly and then bounced back impressively.

In 1949, when the dollar was fixed at DM4.20, there was no sign of any decline.

On the contrary. It was the cornerstone of the fixed exchange rate system of the time.

It was in short supply and matched gold as a national reserve because Washington guaranteed its convertibility into gold.

But then the Americans started losing their solidity. Their world-wide spending for development and military aid and the Vietnam War created huge deficits that had to be financed by printing more dollars.

Dollar assets grew on a world-wide scale until it became obvious that American gold reserves would not be enough to continue guaranteeing the convertibility. The guarantee was revoked in 1971.

Faith in the dollar and the fixed ex-

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■ BUSINESS

# Bosch chief to retire, but not completely

Bosch, Germany's second largest electrical group, will get a new chairman of the board this year.

Management board member Dr Marcus Bierich, 57, the representative of the Allianz insurance groups, will succeed Professor Hans L. Merkle.

Merkle, who is 70, will become of the supervisory board. He is on of Germany's most outstanding company executives and will continue to wield influence in his new position.

He has been part of the Bosch management since 1958 and has headed it since 1963, since when annual sales have risen from DM2bn to well over DM14bn.

Bosch now has a world-wide work force of 110,000.

Merkle was instrumental in diversifying the product range. It reduced its heavy dependence on automotive parts and developed a broader and more secure basis.

Hans Merkle . . . outstanding record.
(Photo: J. H. Darchinger)

Automotive electrics still account for the lion's share of sales. But other product areas such as Blaupunkt television, Bauer film cameras, Bosch-Siemens household appliances, machine tools and a variety of other goods, now account for the remaining 50 per cent of sales.

Merkle's work for the good of the Bosch group was tellingly demonstrated when his quick action resulted in the purchase from the ailing AEG of the bulk of its stake in Telefonbau & Normalzeit.

The purchase by Bosch, together with Mannesmann and Allianz, of AEG-Telefunken's stake in the telecommunications business, ATN in Backnang, provided the company with access to technologies of the future.

After AEG applied to the court for protection from its creditors, the new ATN equity holders recalled the shares and renamed the Backnang company ATN.

Bosch is linked not only with Siemens (through their joint household appliance subsidiary) but also with Allianz insurance, as evidenced by their joint involvement in Backnang.

Merkle's successor, Marcus Bierich, was a member of the Bosch supervisory board from 1976 to 1980.

He joined Mannesmann, another



Marcus Bierich . . . the new man.
(Photo: Poly-Press)

Bosch partner, as financial director in 1961. He was appointed a management board member in 1967.

He has been a member of the Allianz board since 1980 and has for some time been spoken of as a possible successor to Merkle.

It is thus not surprising that the Allianz group's supervisory board is putting no stumbling blocks in his way.

Bierich will be replaced on the boards of Allianz Versicherung and Allianz Lebensversicherung by Dr Friedrich Schiefer, 44, now member of the shareholders committee and the executive committee of McKinsey.

*rd dpa vwd*

(Frankfurter Neue Presse, 19 January 1984)

# Courage, ideas, dynamism lacking, says award winner

**DIE WELT**

A prominent German businessman has accused the Bonn government of violating free-enterprise principles.

Heinz Nixdorf, chairman of the management board of Nixdorf Computer AG, says the government is allowing big companies to grow bigger while the growth of small ones is being hindered.

"Big companies have created no jobs," he said at a ceremony in Bad Godesberg at which he was awarded the Ludwig Erhard Medal for "meritorious services to the social market economy."

It is not often that German businessmen launch attacks like this on the government.

Nixdorf said that German business was short of courage, ideas and dynamism. Capital was not the problem.

German businessmen should be more self-confident in handling Japanese competition despite they fact that they were annoyed by what he called "unfair competition."

He suggested that German prices should be raised one per cent if the resultant after-tax profits helped generate jobs. Not all businessmen would agree.



Heinz Nixdorf . . . criticised government.
(Photo: dpa)

Nixdorf began in a basement in 1952 with borrowed capital of DM30,000. Today his world-wide electronics company has a workforce of 16,000.

He can't resist sniping at such giant monopoly enterprises as the post office and Lufthansa.

He rejected the idea that today's

Continued on page 8

# Zeiss, firm with a crack in the glass

One hundred years ago, the precision optics and glassware firm Carl Zeiss was founded in Jena, which is today in East Germany.

There are now two Zeiss companies, one in West Germany and the other in the East. The name was subject to a long legal wrangle about the right to its use.

The names Carl Zeiss and the brand name Jena glass (oven-proof glass) have become hallmarks of quality throughout the world.

The firm was the result of close co-operation between Carl Zeiss and the physicist and social reformer Ernst Abbé.

Operations began in September 1884 with the manufacture of optical glass.

The company, which was turned over to the specially established Carl Zeiss Foundation in 1889, also earned fame with its exceptional social achievements, introduced and laid down in the Foundation's statutes by Ernst Abbé.

The now split firm made headlines in the post-World War II era because of long court battles over the use of the name Zeiss.

When Carl Zeiss died in 1888 at the age of 72, Ernst Abbé, who had for many years fought for reforms of labour-capital relations, introduced a number of social changes in the company.

He limited the company's right of dismissal, introduced paid holidays, established a pensions fund and, by 1900, Zeiss workers had an eight-hour work day.

In 1919, the shares in the Zeiss company of the glass manufacturer Otto Schott were added to the Foundation's stock.

What remained of the Carl Zeiss Foundation after the war and post-war dismantling was split between East and West.

In the West, this resulted in the firms Carl Zeiss im Oberkochen, Württemberg, and the Schott Glass Works in Mainz, both owned by the Carl Zeiss Foundation in Heidenheim, West Germany.

In the East the state-owned Carl Zeiss Jena emerged. Following a long legal dispute this company dropped the name Schott in 1980 but was allowed to continue using the trademark Jena Glass. The company now trades in most Western countries under the name Jenoptik.

Global sales of the Jena works were around 300m East marks in 1983.

The Western Carl Zeiss Foundation, consisting of the Zeiss and Schott groups, achieved sales of more than DM2.6bn that year.

The legal dispute over the use of the name Zeiss began in London in 1955.

The court later dealt with the issue of compensation to the Jena company for its confiscated assets in the West.



Carl Zeiss . . . founding father.
(Photo: Conti-Press)

The dispute was settled out of court in 1971.

The German press paid great attention to the interim decisions of foreign courts on a possible *de jure* or *de facto* recognition of East Germany, especially in the 1950s and early 1960s.

Unlike with the legal disputes over the use by the GDR of other world famous trademarks — most of which were lost by East Germany — the GDR was partly successful in the tug-of-war over the name Carl Zeiss.

In 1965, Switzerland's Federal Court ruled that the Jena works could sell its products under the name VEB Carl Zeiss Jena (VEB stands for Volkseigener Betrieb or people's company).

But the East Germans were defeated in court rulings of the 1960s in the USA, France and Italy when they made a bid to stop the West German competition using the name Zeiss.

The Federal Court in West Germany ruled in 1957 that the East German company could not use the name in the West.

At the time, the West German court ruled that the Carl Zeiss Foundation was the sole owner of all rights of Carl Zeiss companies. Other courts uphelp this.

East Germany nationalised the Foundation in 1948, without compensation, and declared it a VEB.

After a tedious reconstruction of the East German works, 90 per cent of which had been dismantled by the Soviets, Jena works workers lost many of the social benefits after nationalisation.

A brief period of cooperation between the East German and West German companies came to an end in 1953. It had led to the arrest of and, in some instances, long prison sentences for East German company executives.

*Heinz Kaiser*

(Stuttgarter Nachrichten, 13 January 1984)

■ TRANSPORT

# Mass-produced electric cars 'this decade'

Mannheimer MORGEN

BBC, the Mannheim-based electrical company, is confident that mass produced electric cars will take to the roads before the end of the decade.

It does not intend to manufacture the cars itself but hopes to cooperate with an established manufacturer.

BBC is now developing a high performance battery for the car.

"The battery system we developed over 10 years is not yet a sales hit, but it is a milestone en route to a high performance electric car," Dr Hans Kahlen, head of BBC's electro-car project, told the press in Baden-Baden.

The electric car has been around almost as long as the internal combustion version. The first was built by Thomas Alva Edison in 1889 and called Electric Runabout.

Around the turn of the century, there were more electric cars than internal combustion vehicles on American roads.

But it soon turned out that petrol, with its greater energy potential, was better than batteries.

"If we had an assured fuel supply for several centuries and if combustion engines were absolutely silent and non-polluting, no other propulsion system would stand a chance," said Dr Kahlen.

The increase in oil costs gave electric cars another chance. Oil supplies no longer appeared secure and the public became increasingly environment conscious.

But no breakthrough has been achieved in electric-car development despite considerable research and development work.

The main bugbears have been technical problems and, even more so, the reluctance of the motor industry to get involved.

The few electric vehicles that are now on the roads are experimental.

Germany has about 20 electric buses, and 30 battery-driven VW Golfs are undergoing tests. Most have conventional lead batteries.

Other countries are working along similar lines.

The USA has launched a $160m development programme, but the prototypes are not efficient enough, according to Dr Kahlen.

In America, electric cars have so far been a domain of small manufacturers, most of whom leave it to others to make the propulsion units.

The major companies have so far see little marketing opportunity so have had no incentive.

General Electric (GE) and Chrysler have been tinkering with lead battery-driven electric cars but the prototypes never reached the assembly line.

General Motors announced in 1980 that it would build 100,000 cars a year from next year, 1985, but the nickel-tin battery proved too expensive and short-lived, according to Kahlen.

Electric vehicles have gained a foothold in British cities where some 30,000 are used primarily for milk delivery. Their speed ranges from 30 to 40kph.

Spearheaded by the state-owned Electricité de France (EDF), France has carried out several experimental programmes over the past 15 years.

The tests included buses. And some 120 Renault R4s and R5s have been converted to run on electricity.

The Japanese have so far failed to come up with anything new. The electric cars they do have on show are mostly powered by conventional lead batteries.

Nissan intends to market a car with a nickel-iron battery. Toyota has obtained an Exxon licence for a zinc-bromine battery which is still under development. Hitachi has begun testing a sodium-sulphur battery.

BC also pins hopes on the sodium-sulphur variety. Sodium-sulphur batteries, which are now also being developed by Chloride and a Ford subsidiary in the USA, deliver three to five times the energy of lead batteries.

Dr Kahlen: "Our batteries are not yet fully developed. Much work will still be needed before we can proceed to the next type of battery."

This makes it the more surprising that BBC has announced that a battery-driven car will reach the market as early as the second half of this decade.

It is still a company secret which car manufacturer has agreed to adopt the BBC idea.

In any event, BBC has a clear idea about the final product: the combined purchase and operating cost will be no more than that of a VW Golf.

The car will have a top speed of 130kph. It will accelerate from zero to 50kph in seven seconds and its range at 100kph will be 250km.

The battery will be rechargeable overnight by plugging it into any 220-volt outlet. Faster recharging will be possible using a costly charging device.

Empty batteries could also be exchanged at petrol stations: "Operated in conjunction with a battery leasing system, this would be a sound approach," says Kahlen.

Electric cars would need 20kwh for 100km. At today's rates, this would cost about DM3, making operating costs considerably lower than for petrol-driven cars.

But the higher purchase price would probably offset this.

*Gert Goebel*

(Mannheimer Morgen, 25 January 1984)



# The fall and rise of the dollar

Continued from page 6

change rate system was shaken despite many rescue attempts.

In 1973, the system had to be abandoned in favour of floating exchange rates. This was followed by a progressive decline of the dollar.

At the beginning of 1980, the exchange rate against the deutschemark reached its lowest point: DM1.71.

This was followed by a gradual and sustained recovery — and not only because high American interest rates attracted foreign money.

What mattered even more was the regained confidence in the political and economic strength of the USA.

Otto Wolff von Amerongen, president of the Chamber of Commerce and Industry, said that he was not one of those who believed the dollar to be overvalued. That fits into this picture.

The prevailing international view now is that the dollar is once more the would's safest currence despite America's budget and trade deficits.

America has grown more self-assured and has had considerable economic successes.

The anti-inflationary policy of the Reagan Administration and the Federal Reserve Bank has been conspicuously successful.

While prices in the United States have remained relatively stable, the economy is surging ahead. This economic growth coupled with stable prices has boosted the dollar and confidence in it.

The situation can also be viewed in reverse: Many people seem to overlook the fact that Germany and its deutschemark no longer enjoy the international economic position of previous years.

Granted, the Germans still lead in the fight against inflation. But other nations are catching up.

Germany has structural growth problems, close to 2.5 million jobless and a high budget deficit. Its competitiveness is also not what it used to be, and its international image has been cut down to size. Events like the dispute over the 35-hour work week do not help the image.

There are disappointed hopes on this side of the Atlantic, where there is growing self-confidence based on economic successes. This cannot fail to have its effect on foreign exchange markets.

Economic research institutes in this country have only just pointed to the growing technology gap between the USA and Germany.

This, too, makes forecasts on the future development of the two currencies risky, especially at a time when the White House seems to have abandoned its benevolent neglect of the dollar's performance.

There is much to indicate that we will have to live with a strong dollar — even if the American budgetary and current account deficits speak against it in the long run.

(Der Tagesspiegel, 15 January 1984)

# Nixdorf award

Continued from page 7

structural weakness in Germany was due to lack of capital.

"There's enough capital," he says. "What we're short of is courage, ideas and dynamism."

Berlin Mayor Richard von Weizsäcker, who presented Nixdorf with the medal, smiled contentedly in the knowledge that the Berlin Senate promotes Nixdorf's innovative spirit.

He said that Nixdorf had just built a vocational school "with no exit or entrance of its own" to force teachers to pass through the shop floor and get a whiff of factory air.

Nixdorf closed, saying: "I am glad to be a German and I'm proud of our social market economy.

Karl Hohmann of the Ludwig Erhard Foundation called Nixdorf a "sensation of positive thinking" — a distinction rarely conferred by the media on German businessmen of the 1980s.

*Peter Gillies*

(Die Welt, 23 January 1984)



■ GEOPHYSICS

# Booty of the sea-bed in among the black smokers

An entirely new category of self-replenishing commodity deposits has lately been identified on the bed of the Pacific.

Unlike conventional deposits, which are sooner or later exhausted, the new-found sulphide ore deposits are self-renewing.

They are created by interaction between seawater and rising magma that surfaces, if that is the right word on the sea-bed, at the edge of a ledge or shelf.

They increase extremely fast. French scientists have reported ore layers growing several centimetres thicker by the week.

In response to initial reports the Geothermal Metallogenesis East Pacific, or Geometep, project was launched in 1979.

Agencies associated with the project include the Federal Geoscience Research Establishment, Hanover, and Preussag, also Hanover, and many domestic and foreign universities.

They include the CNEXO group, of Brest, France, while the Bonn Research and Technology Ministry has lent financial backing.

Geometep's objective is to identify geochemical indicators to describe the various deposits in terms of origin and importance.

Initial findings indicate that self-replenishing ores are only likely to occur where tectonic shelves are drifting apart at any speed, geologically speaking.

The fastest drifts, about seven centimetres a year, have been found in the south-east Pacific. That is about 10 times faster than in the Atlantic, where sulphide ore deposits of this kind have yet to be located.

Exploration of deposits is beset by special difficulties. Sea-bed manganese nodules rare easy to spot in comparison: they at least cover areas of thousands of square kilometres.

Sulphide deposits are only a few hundred metres across, but come in thick layers. Finding them on the bed of the Pacific is like finding a needle in a haystack.

Conventional geophysical and telemetrical methods have failed so far to locate deposits, but as we know how they originate the search can be limited to certain areas.

They are sections of the sea-bed where faults and folds and edges are known to occur. So the first step is to use an echo-finder to locate them.

On board the German research vessel Sonne a seabeam is employed. Unlike the conventional echo-finder, which works in straight lines, the seabeam delineates the sea-bed as a wide strip, with elevation lines denoting the exact topography.

The technique is backed up by various other means of identifying different kinds of lava and small faults, such as underwater TV.

Sulphide deposits are along narrow, lengthy ridges where volcanic activity occurs in the axial zone of shelf edges.

In this zone seawater pours through gaps into the ground and is heated to up to 350°C, only to resurface elsewhere, enriched with minerals, where the deposits are found.

In this thermal water the oxygen, magnesium and sulphate of pure seawater have disappeared. In their place there are silicic acid, potassium, calcium, hydrogen sulphide, iron, manganese, zinc, copper, barium and other elements.

Where the hot thermal water meets the cold seawater many minerals are precipitated and settle on the sea-bed in the form of a black crust.

That is why thermal springs are known as black smokers.

Sulphide deposits so far found have been conical, chimney-shaped humps like anthills. They are several metres tall and made of porous but firm, hard material.

They consist mainly of sulphur compounds of iron, zinc and copper. Substances that are more readily soluble in seawater are precipitated further away from the hot springs or may even remain in the seawater.

So chemical analysis of the seawater may also help to locate deposits.

As deposits in the immediate vicinity of the sea-bed spring can be fast exhausted by deeps-sea water containing oxygen, their existence is taken to mean constant self-replenishment.

This inference has been confirmed by the French bathyscaphe *Cyana*. When they are fast covered by fine-grained sediment and shielded from the destructive influence of oxygen, deposits can keep more or less forever.

Their extremely high metal counts make deposits limited in quantity an interesting economic prospect. Some smokers contain up to 3.6 per cent copper, the record so far being 12 per cent.

The average for deposits found in the eastern Galapagos reef area is 10 per cent, which makes smokers even richer than comparable first-rate land deposits.

Commercial exploitation is still out of the question, however, because not enough smokers have been located.

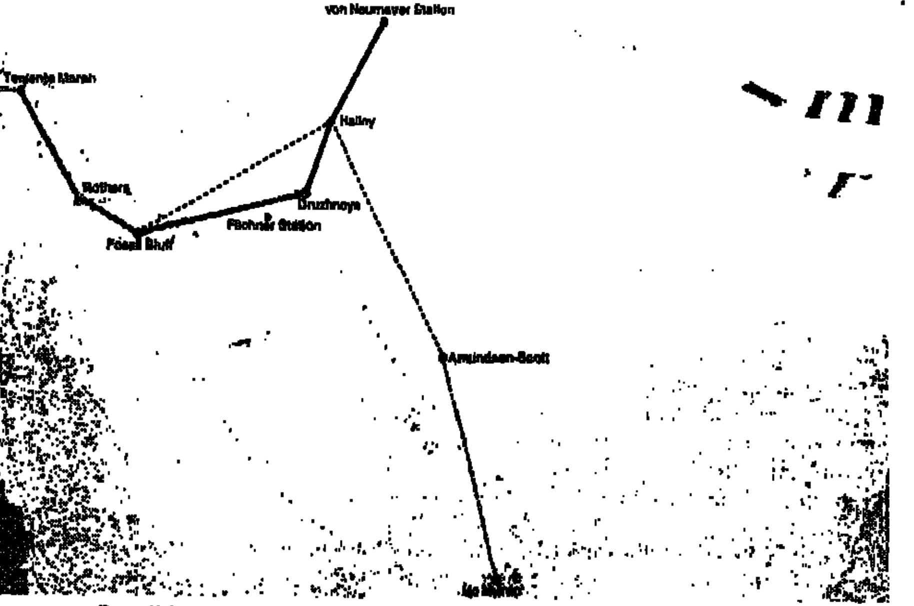
Current research is aimed at filling gaps in what we know about overall deposits of sea-bed sulphide ore.

This research is accompanied on dry land by a flurry of diplomatic activity arising from the fact that the UN law of the sea conference failed to take black smokers sufficiently into account.

*Hinrich Bäsemann*

(Deutsches Allgemeines Sonntagsblatt, 15 January 1984)

The research vessel 'Sonne' at Bremerhaven. (Photo: dpa)




Possible air routes for German research aircraft in the Antarctic.
(Photo: Dornier)

# First scientific chirps as summer shines on polar ice

With summer under way at the South Pole the Federal Republic of Germany's third Antarctic expedition has started work.

This time it has the backing of two aircraft as well as the research and supply vessel *Polarstern*, which has been in use since 1982.

The planes have a wide range of roles to play, starting with flights between the Georg von Neumayer permanent base camp and the summer camp on the Filchner ice shelf

They will extend the range of activities expedition scientists can carry out, including the use of specially designed measuring equipment to probe the properties of soil only slightly thawed.

By signing the Antarctic Treaty in February 1979 Bonn gained the right to send scientific expeditions south of the 60th parallel and set up scientific bases in the Antarctic.

The research programme begun in January is led by the Alfred Wegener Polar Research Institute, Bremerhaven, with backing from Münster University geophysics department, the Federal Geoscience Research Establishment, Hanover, and Frankfurt institute of applied geodesy.

The sensory equipment the expedition has with it will be used for geophysical, cartographic, glaciological and, later, meteorological measurements.

Geophysical surveys will use an electromagnetometer to locate exploitable ore deposits. A proton magnetometer will indicate magnetic raw materials.

An electromagnetic reflection measuring device will sound out the ground topography beneath layers of ice that can be up to a kilometre thick.

Land overflown will be photographed exhaustively and in exact detail for geodetic work, and scientific missions naturally require utmost precision in navigation.

The two aircraft were bought by Bremen and placed at the Bremerhaven institute's disposal. They are a Dornier Do 128-6 and a DO 228-100 specilly equipped for Antarctic research.

Polar 1, the smaller Do 128-6, is intended for use on freight and feeder runs, whereas the larger aircraft, the Polar 2, will fly long runs and take measurements.

Both planes have oxygen equipment on board because they can fly at altitudes of up to seven kilometres, or four miles.

Both were put through their paces in Greenland last summer, taking off and landing up to 40 times on snow- and ice-clad surfaces at altitudes of 2,500 metres (8,200ft).

They did so in various wind, weather and visibility conditions to check how reliable the special equipment was and to prepare for the Antarctic expedition.

The planes were flown 18,000km to the Antarctic via the Canary and Cape Verde Islands, Ascension Island, Brazil, Argentina and Chile.

They are now flying to and from the two Antarctic camps, which are 1,460km (912 miles) apart. The nearest neighbours to the summer camp are the Soviet Druzhnaya station, 270km (169 mile) away and the British airstrips at Halley and Fossil Bluff.

Summer at the South Pole is so short that the Filchner camp must be vacated by mid-February. The two planes will then fly back to Oberpfaffenhofen, near Munich, where they are expected back in mid-March.

The fourth Antarctic mission is planned to start in October and to last until March 1985.

In the 1984-85 season the Federal Geoscience Research Establishment has plans for an expedition to North Victoria Land, the starting point for Gondwana base camp.

The Hanover scientists are working on the project alongside research institutes in the United States and New Zealand.

*Rudolf Metzler*

(Süddeutsche Zeitung, 12 January 1984)

**■ THE ARTS**

# Pictorial warning over the new industrial revolution

"Rationalisation — 1984" is of an exhibition on show at the Berlin Art Gallery.

The title not only plays on Orwell's negative utopia but, as the gallery's director, Dieter Ruckhaberle, points out, it signals "a mixture of fear of an all-powerful state, the manipulation of language and the general lack of hope for the future".

It also asks the question "How can mankind find a humane way to survive the 3rd Industrial Revolution?"

The preface to the exhibition catalogue, written by its co-organisers, the "Neue Gesellschaft für Bildende Kunst, provides an answer, or at least part of an answer: "The aim is to make sure technological progress also means social progress, so that the sun can shine on both sides of the street."

Admittedly, it's not easy to illustrate this idea in an exhibition which is supposed to be an "art" exhibition.

The organisers were aware of the difficulties they would have when trying to find works of art which had focussed on this theme.

For this reason, they commissioned artists from Berlin who had something to say about this subject or who at least felt they had a contribution to make.

However, not many of them could develop anything really "conclusive". Gernot Bubenik is an exception. On a seven-part aluminium plate (220 by 750 cm) he employs a masterly spraying technique to reproduce the history of technical rationalisation from Leonardo right through to the modern day, using a slightly surrealising style.

Akbar Behkalam, whose freely interpreted tempera painting "Erschaffung" (Creation), based on Michelangelo's masterpiece, is shown on the cover of the exhibition catalogue, also stands out from the rest: the hand which Adam stretches out to his Creator is the robot hand of a computer machine.

The works loaned from other museums and galleries stick a bit more rigidly to the subject of the exhibition.

Jürgen Waller, for example, cites Caspar David Friedrich in his "Wanderer über dem Nebelmeer" (Wanderer through the Sea of Fog), an oil painting full of irony. His wanderer stands on top of a gigantic office building and looks down upon a landscape of houses disappearing in the smog.

Harald Duwes smog-covered "Industrielandschaft" (Industrial Landscape) corresponds to earlier depictions of polluting production centres, with its anonymous pictures of factories and rolling mills, reminiscent of Lucas von Valckenborch's (1580) "Gebirgslandschaft mit Eisenhütten":

Unfortunately, many of the more famous paintings of this genre are only shown in the catalogue.

During the first industrial revolution rationalisation was almost always mechanisation.

Heinrich Oerles painting "Fabrikarbeiter" (Factory Workers) sets out to underline the danger of the conveyor-belt worker turning into a machine himself.

In the cycle of wood carvings from Gerd Arntz, "Zwölf Häuser zur Zeit" (1927) and "Lehrbilder" (1931–1938), we also see factory workers, office workers, civil servants and soldiers, appearing as two-dimensional, interchangeable stereotype figures.

This section of the exhibition also presents works by Max Ernst, Felixmüller, Guttoso, Kandinsky, Moholy-Nagy and the East German painters, Sitte and Tübke. They add artistic relevance.

In another section, the visitor to the gallery is confronted by the technical slaves of rationalisation, the machines and various apparatuses.

Alongside a multispindle machine we find two lathes and other machines which provide a rundown on the development of machine tools from the first automatic lathes (1890) to the microelectronic relays, which can give 2,000 commands and monitor their implementation.

The latter variety of machine can, of course, relieve mankind of the more laborious tasks. However, at the same time he is stripped of his "labour power", the source of his bread and butter up to this time.

Strange as it may seem, in an age of machines, robots and computers man begins to long for a return to the "sweat-of-my-brow" days, to the ways in which he has earned a living ever since the expulsion from Paradise.

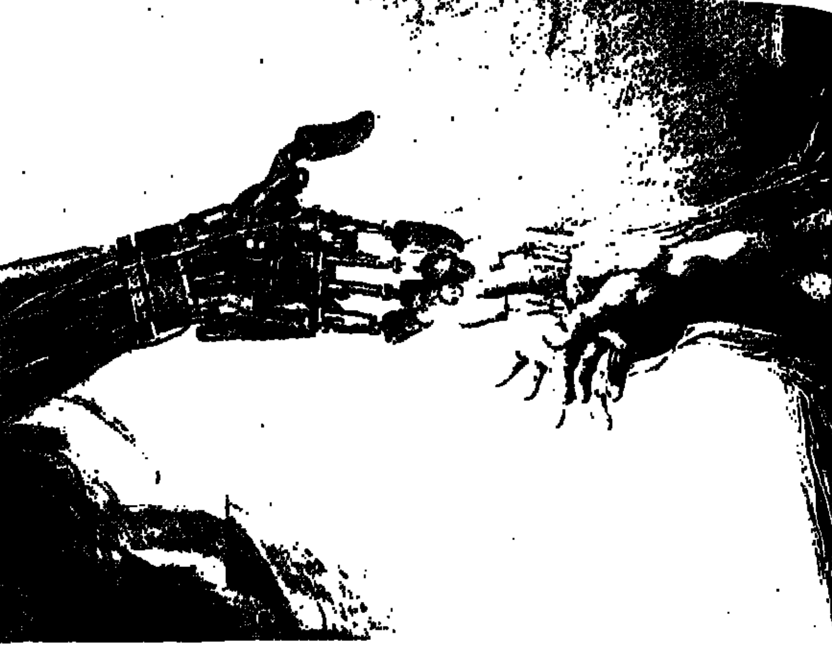
He feels uneasy at the thought of the new Paradise promised him by the Apostles of the new industrial revolution. The future seems more dangerous than ideal.

The pictures at the exhibition are analysed and commented upon in the catalogue's essays, documents and statistics. Anyone who reads it will certainly find plenty of facts and figures, but no hope.

It is going to take some time before the sun shines on both sides of the street.

*Hellmut Kotschenreuther*

(Kieler Nachrichten, 18 January 1984)



**Akbar Behkalem's 'Creation' based on the Michelangelo masterpiece. It is being ex- hibited at the Berlin exhibition, Rationalisation — 1984.** (Photo: ...

# Holography: illusion of icing on an illusory cream cake

**Cologne artist Brigitte Burgmer uses holographic techniques in her own work. Here, she reports on a holography exhibition for *Kölner Stadt-Anzeiger.***

Where there is light, there is also darkness: in holography, anyway.

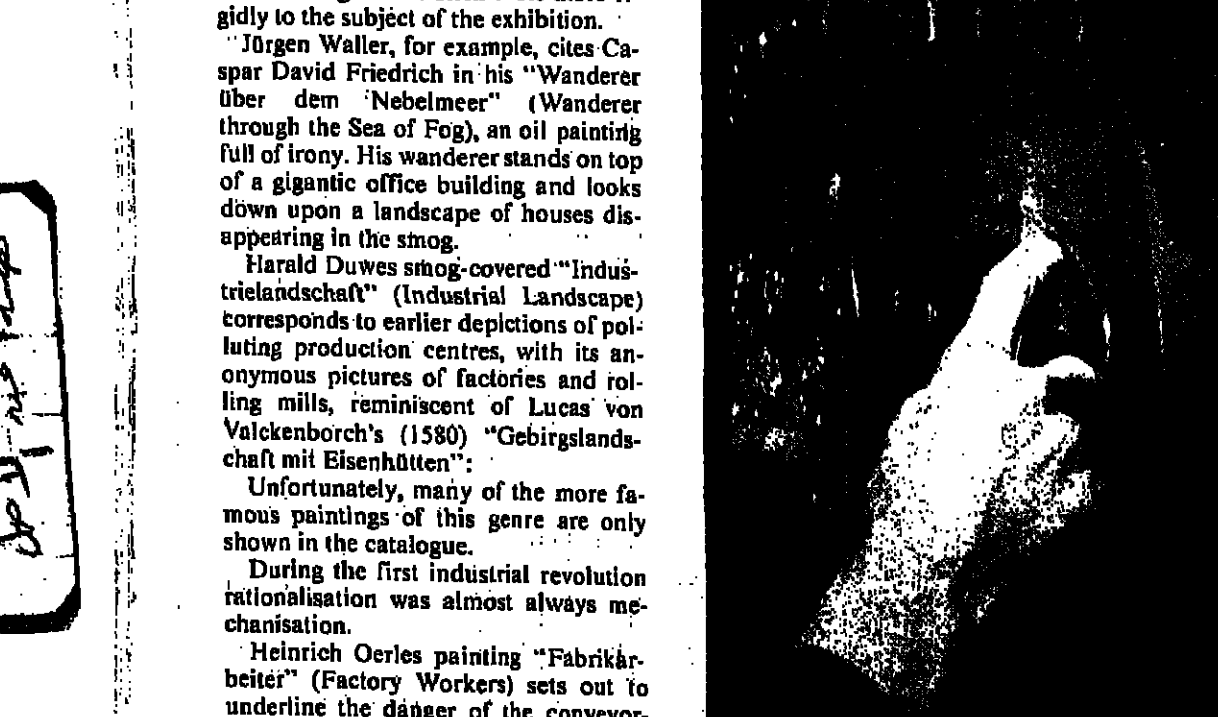
Holographic pictures, which can only become "visible" as and in reproduction in the sense described by Walter Benjamin in his *Kunstwerk im Zeitalter seiner technischen Reproduzierbarkeit* (Artistic Works in the Age of Their Technical Reproducibility), have a special aura about them.

Whether an ordinary water tap or a picture of Einstein, a holographic hammer hitting a (real) nail, or such complex creations such as Dan Schweitzer's "Center of the Gallery", they all emit a three-dimensional radiance, illuminated jewels lost in the darkness of the exhibition rooms.

Hanover's Art Gallery was the first to put on a public exhibition of holography at the end of last year.

The Pulheim Museum of Holography and New Media is currently staging a similar exhibition at the *Museum für Volk und Wirtschaft* in Düsseldorf. Exhibitions are to follow in Munich, Münster and Gelsenkirchen. The title of the exhibition, "Holography — Medium of Art and Technology", aptly circumscribes this medium's field of application. The museum showed no inhibitions when it came to advertising. There is an astounding reproduction of a model of the "Parc de la Villette", the Natural Sciences Museum planned in Paris; three metres of park grounds on this side and on the other side of the pictorial dimension of the museum rooms. The category of portrait holography (Reuterswärd with moustache as Dali) forms an important part of the exhibition, as do the so-called ho[...] graphics, which include the hyperreal[...] tic water tap and the inverse version [...] the Mona Lisa, floating way ahead [...] the alienated Pop Art portrait à la A[...] Warhol.





**A finger finds merely emptiness ... the telephone is just a holographic image.** (Photo: Museum of Holography, Pulheim)

A small selection of artists from E[...]rope and the USA show that holography does produce works of art.

The holographic artists, still a relati[vely] small group, have already develo[ped] their own style and their own topics.

Connections to 20th century art his[to]ry involuntarily come to mind.

Ruben Nunez, better-known as a [...]etic artist, designs small-scale cos[mic] worlds. In his "Eridan", he uses cry[stal] balls to produce reflections and refr[ac]tions of light, triggering an elemen[tal] pyrotechnic eruption of colour.

Rudie Berkhout's works are ma[rked] by geometrical abstraction. In som[e of] his holograms, whole spherical [...]drons pass over the onlookers. In [...] old-fashioned way, his cubes repres[ent a] Euclidian world, both calculable [and] presentable.

Holography in Germany is repre[sen]ted by Dieter Jung. His striped and [...]nar compositions carry on both the [...] of the Russian Constructivists as we[ll as] those of the "Zero" group, this time [ma]king use of a new medium.

The American Sam Moree extends holographic collages by adding tube[s to] form light sculptures in two re[...] light becomes the carrier of inform[ation] as well as appearing in its pure form.

"Cartesian Memory" questions [Des]cartes. Whereas the philosopher Des[car]tes was convinced that the expansi[on of] objects, their position in space, [...] shape and substance guaranteed [...] our senses could not be deceived, [...] graphy would seem to cut the gro[und] from beneath his feet.

He finds himself grasping into a [...]ping void, into a space where m[...] bodies appear to exist.

In his "Meeting", Rick Silber[...] takes up the Baroque interplay of re[...] and appearance. His green, illus[...]

Continued on page 11



**■ THE THEATRE**

# Wilson gets his wizard spectacular together

Christ und Welt
Rheinischer Merkur

Bob Wilson as the Wizard of Oz has just let loose on Cologne theatregoers a six-evening spectacular featuring the four fabulous characters immortalised by Hollywood and on Broadway.

They were off to see a German wonderland as envisaged by the Texan playwright and director, a man possessed by his plan to stage a four-day dream factory to an audience of 6,000 at the Shrine Auditorium in Los Angeles in June.

A thousand players from six countries have been hired for the opening venture of the Olympic Arts Festival. It will cost DM14m, raised from patrons all over the world.

Wilson's wizard spectacular, entitled *The CIVIL warS*, will compete with athletes from all nations, probably resulting in a victory of the powers of imagination over the force of gravity.

He has been touring the world for a year making preparations for the worldwide spectacular, rehearsing with companies in Rotterdam, Cologne, Rome, Tokyo and Minneapolis.

For days and nights he has forced despairing actors and backstage workers into the constraints of his vision of a totalitarian dream play.

Wilson's dream is to pacify the bourgeois conflict sector in a surreal manner.

The title is partly in capitals to emphasise that it is the bourgeoisie themselves who both cause and are affected by their daily nightmares.

It indicates the external and internal venue of clashes against the background of which, to paraphrase Calderon, peace is a dream.

Wilson was inspired by photos taken by US Civil War photographer Matthew Brady, who recorded on film the tragic aspects of the war between the states.

It may be assumed that Wilson saw the photos through the dark glasses of the writer Ambrose Bierce, who personally experienced the Civil War in the manner of Edgar Allan Poe as an individual horror scene.

The war too assumes dream proportions. To the inner eye the destruction of human life is long preserved in the fine outlines of melancholy, bizarre images.

For reasons of time alone it can be a torture to see it out: the march-past of dead families going through their various catastrophes in their various countries at various periods.

In Cologne this took five and a half hours, but why should a society the energies of which are aimed more at carrying out than avoiding the apocalyptic dream be spared such aesthetic torture?

Wilson mercilessly uses the Cologne production to submerge himself in a tortuously artificial manner into the era of German Romanticism.

Those who have seen parts of the project in other countries compare it positively with a new Ring cycle and negatively with a kind of Disneyland built with Lego children's bricks.

Wilson undermines praise and panning with an ironic comment that his Babylonian stage parable is arranged in layers along the lines of the McDonald's (hamburger) principle.

In reality Wilson behaves like an insatiable child dreamer who can never get his fill of the world's fairy tales.

In Germany he really struck paydirt, being helped in the process by Heiner Müller, a playwright who hails from the GDR.

Müller is a visionary of horror who constantly sees German history as the blackest of black humour, a gruesomely, consistently nihilistic farce.

The Cologne company's contribution toward the project is the first part of the First Act, the fourth part of the Third Act and the entire Fourth Act.

Silvery aquanauts lead off, clambering up tall ladders like valkyries from the science fiction studios of horror filmmaker Jack Arnold and hovering weightlessly to the spherical music of Gavin Bryars.

The *Financial Times* dismissed Bryars' music as having the "charm and force of an exploding teacake."

Against the background of a ficititious continent resembling South America the Wizard of Oz characters look out in vain for their dreamland.

An old king feels his way round his lost kingdom. Voltaire lets loose cynical scraps of words in a senile bout of hysteria.

The continent disintegrates. Battlefields are suspended from the rigging loft. The model of a landscape and a small town is pushed onstage from the wings.

Bent double and motionless, Frederick the Great, played by Ingrid Andrée, stands among the houses while soldiers die by the score and lights flicker to denote the order of battle.

This long and magnificent picture from the toybox is the opening scene of CIVIL warS.

All characters say their fragmentary parts with a note of incantation to emphasise the dreamlike character of the play.

Sentences gently go round the auditorium from the loudspeakers, delivered in audio-visual manner. They irritate irked



**Up the Jacob's ladder in front of the dark continent. A scene from 'The CIVIL warS'.** (Photo: Baus-Mattar)

hecklers who find such endless slow-motion scenes unbearable.

"Oh what a dreadful war!" says a soldier on guard mounting at camp, part of the Third Act arranged by the Cologne company.

But the dread is already in a kind of limbo where only the shadows of lone warriors encounter a petrified group of travellers who drive past palely in a ghostly coach.

The family in the Fourth Act is seen completely in the grotesquely pointed context of the German Romanticism of death, and the Fourth Act takes more than three hours.

It was written by Heiner Müller. With an Eichendorff quotation about home, where father and mother are long since dead, Wilson reunites isolated members of the family in a manner ranging from the traumatic to the autistic.

Yet in closest proximity they remain farthest apart from each other.

Behind a transparent curtain the little Prussian king can be seen. His flute concerto is played. German cities laid waste in World War II are seen on the screen.

Tortoises swim past. Arctic Ocean scenes are flashed on to the screen. Against this background the outlines of the actors are immobilised like those of Romantic painter Caspar David Friedrich's lone landscape figures.

A huge bomb hangs as light as a feather over the fairy-tale scene, like a destructive toy. Along the lines of the Brothers Grimm the Erlkönig seems to join forces with the surreal figures created by Clemens von Brentano and Heiner Müller.

Wilson gazes entrancedly at the fantastic figures created by the German Romantics in much the same way as E. Th. A. Hoffmann looks through Spalanzani's magic glasses.

Untiringly he transposes them into constantly new and exactly calculated spheres of light so that every spectator who is able to imbibe with his eyes for hours on end this esoteric perpetual motion of pure theatre of imagery can dream his strictly personal dreams.

Those who refuse to do so (understandably a fair number) will feel provoked in a particularly disarming way in the second third of the long act — a manner extremely typical of Wilson.

In a seeming finale the actors come on stage to take their bow, but for so long that applause is bound eventually to dwindle and die.

When the less resilient theatregoers have finally left, assuming that really was the end of the show, the performance continues for a further hour.

Black writers march on stage and into the theatre on stilts, muttering names that must put Germans to shame as though they (names such as Stalingrad, Plötzensee, Auschwitz, Coventry and Stammheim) were incomprehensible inventions by cruel writers of fairy tales.

A group of private donors was set up in Cologne to back Wilson's world-encompassing slow-motion theatre. Its chairman, befitting the Olympic connotation, is NOC chairman Willi Daume.

Wizard of Oz Wilson has succeeded in enlisting the support of backers such as Gabriele Henkel, a well-known patron of the arts.

Lufthansa has been called on to fly the Cologne company to the Olympic Arts Festival free of charge.

*Günter Engelhard*

(Rheinischer Merkur/Christ und Welt, 20 January 1984)

Continued from page 10

wine-glass is supplemented by a piece of reality to become a veritable whole.

C. F. Reuterswärd is one of the philosophers among the holographers.

He holographed the cream-cake with roses and a number of burning candles as a tribute to Denis Gabor, who was awarded the Nobel Prize in 1971 for discovering holography.

Whereas holograms can only be created and reconstructed via light, here we find candlelight and the warmth of the candle transforming into a large, dark cloud of smoke; the light is extinguished within its medium of presentation.

Dan Schweitzer's "The Seed" is even more confusing — indeed, perhaps the most unusual hologram of the past two years.

For no other hologram incorporates the fourth dimension to such an extent: time.

Einstein's distorted mirrored portrait only begins to unfold when the onlooker moves sideways, emerging from its embryonic figuration.

At the same time, the "railway tracks" bend backwards in the room — linear space is no more — and the blue-green "globe" turns out to be a round hole, behind which a field of clouds passes by.

These objects and others not only reveal their own velocities but also exhibit individual time relationships.

The exhibition can be seen in Düsseldorf until 12 February.

*Brigitte Burgmer*

(Kölner Stadt-Anzeiger, 17 January 1984)

**■ RESEARCH**

# The forces that hold the world together




**The broken line marks where Hera is to be built. The circumference is about 6,900 yards and the diameter about 2,200 yards. Hamburg's main soccer ground, the *Volksparkstadion* is inside the circle at the right. The smaller circle shows the 2,500 yard circumference of the Petra facility.** (Freig. Nr. 262/81 Luftamt Hamburg)

Hera, in Greek mythology Zeus's consort, is an acronym. It stands for Hadron Electron Ring Apparatus, and its progress is being keenly followed by physicists at home and abroad.

It is due for completion by 1990 at Desy (pronounced Daisy), another acronym standing for German Electron Synchrotron, in Hamburg.

Desy is one of the world's few large-scale elementary particle physics research facilities. Scientists hope Hera will shed light on the elementary particles that form the basis of matter.

What forces and particles hold the world together? How many basic units go to make up matter? These are questions research scientists at Desy have sought to answer since 1959.

The Hamburg research centre has a payroll of 1,500 and an annual budget of DM140m.

To gain some idea of what Hera stands for and how research is carried out at Desy you must first visualise the structure of an atom, which is something most of us can remember from chemistry lessons at school.

An atom consists of a nucleus of positively charged protons and uncharged neutrons round which negatively charged electrons orbit like the planets round the Sun.

Until about 50 years ago these three particles, protons, neutrons and electrons, were felt to be the smallest and indivisible components of matter.

The structure of the atom was discovered in 1911 by Ernest Rutherford, a British physicist. Lord Rutherford, as he later was, used a kind of crash test to probe the interior of the atom that in principle was much the same as the way in which research is still conducted at particle accelerators.

As he was unable to peer inside the atom (it was like a sealed bag), he shot arrows through the atomic shield. His projectiles would be deflected by anything they hit inside the atom and emerge at an angle.

Inferences could be drawn from the angle of deflection as to the shape and size of possible atomic constituents.

Rutherford's idea worked. He bombarded his atoms with radioactive alpha particles and was surprised to find that fairly few were deflected.

Until then the atom had been visualised as chock full and firmly enclosed. But Rutherford's findings allowed only one likely conclusion: that most of the interior of the atom consited of nothing.

The atomic nucleus as reconstructed by Rutherford has only a ten-thousandth of the diameter of the entire atom.

In the 1960s it became apparent that protons, neutrons and electrons could not be the elementary particles scientists were looking for.

There had to be much smaller particles that were, for instance, constituent parts of a proton. But how were they to be identified?

Rutherford's alpha particles wouldn't do the trick. Besides, elementary particle physicists had come to realise that much more powerful projectiles were needed to track down their quarry.

Accelerated electrons proved the answer. They may be visualised as light waves on a specific wavelength, and the richer in energy an electron is, the shorter is its wavelength. In other words, the more energy is pumped into an electron, the smaller and faster it becomes. Such high-speed electrons are generated at Desy in Hamburg in particle accelerators and charged with an energy of several billion volts. Several large particle accelerators have been built in Hamburg, the latest being the Petra storage ring, with a circuit of 2,300 metres.

Petra was taken into service in 1978 and has since been constantly improved.

Inside the ring negative electrons and positive positrons are accelerated to a final energy of 23 billion volts and sent hurtling at each other at nearly the speed of light.

Powerful magnetic fields keep the particle currents on course. At four points round the circuit the electrons and positrons collide head-on.

On impact they can destroy each other completely, generating pure energy that immediately explodes. In the process a number of new particles are identified.

They are torn apart for billionths of a second and recorded by thousands of sensors at the points of impact.

Petra has helped the Desy scientists to identify more parts of the atom. The entire zoo of about 300 particles that was discovered in high-altitude radiation research has now been reduced to two basic parts: quarks and leptons.

The standard model particle physicists use to account for this sub-atomic structure is fascinatingly symmetrical: six quarks and six anti-quarks (representing matter and anti-matter respectively).

They can also join forces to make up characteristic groups of three.

Two so-called "u" quarks and one "d" quark make up the positive particle in atomic nuclei, the proton. The neutral neutron consists of two "d" quarks and one "u" quark.

The mysterious quarks are the reason why the atomic nucleus is not broken up by the reciprocal repulsion of like-poled charges.

There is a special force that holds them together. It is transmitted by mesons, each consiting of a quark and an anti-quark.

The atomic shield or mantle consists of a single lepton, known as an electron.

Specific regular features and properties of quarks and leptons have led to the assumption that even these minute particles are not the smallest and ultimate ones.

Yet they are smaller in diameter than the billionth part of a millionth of a millimetre.

The search continues, but it can only be carried out in a particle accelerator with an even greater energy potential: Hera.

Hera will outperform all comers. The tunnel that is to contain two vacuum tubes is being dug 20 metres below the Volksparkstadion soccer ground and the Bahrenfeld racetrack in Hamburg.

It will be a little over three metres (10ft) in diameter and 6,336 metres (20,788ft) long.

In the one vacuum tube electrons will be accelerated and stored at 30 billion volts. In the other, protons will be stored at a final voltage of 820 billion.

Both currents of particles will hurtle round their circuits about 50,000 times per second, with intersections at four points.

Computers will be used to compare the "fingerprints" of particle events and make inferences as to their properties.

Scientists expect Hera to prove the existence of particles that go to make up quarks and of forces that keep them together.

Yet in practice Hera presents countless technical problems. The main technical handicap is the magnetic field required.

Conventional construction techniques are insufficient to generate magnetic fields powerful enough to keep protons accelerated to this speed on course within such a limited diameter.

In theory a power of 10,000 megawatts, or the equivalent of the output of eight nuclear power stations, would be needed.

Superconductive magnets are the solution to the problem, bearing in mind that certain alloys lose their electric resistance at very low temperatures, with the result that current flows through them with virtually no loss.

In Hera's case what this means is that all magnets along a tunnel length of just over four miles must be kept at a constant temperature of minus 269°C.

Work is in full progress at Desy to develop suitable magnets and powerful cryogenic facilities.

Special magnets made of niobium-titanium alloys are already being put through their paces at realistic temperatures to ensure that Hera's ice-cold shoulder presents no practical problem.

Superconductivity reduces the energy Hera needs to a fraction of what would be required if conventional techiques were to be used.

Yet when the accelerator is taken into service Desy research scientists are expecting power requirements to total 50 megawatts, or about 20 per cent more than at present.

Superconductive technology as developed for the new project could well prove useful elsewhere. Transmission of gigantic amounts of electric power along deep-frozen lines is already conceivable and would be less expensive than the usual overhead high-voltage lines.

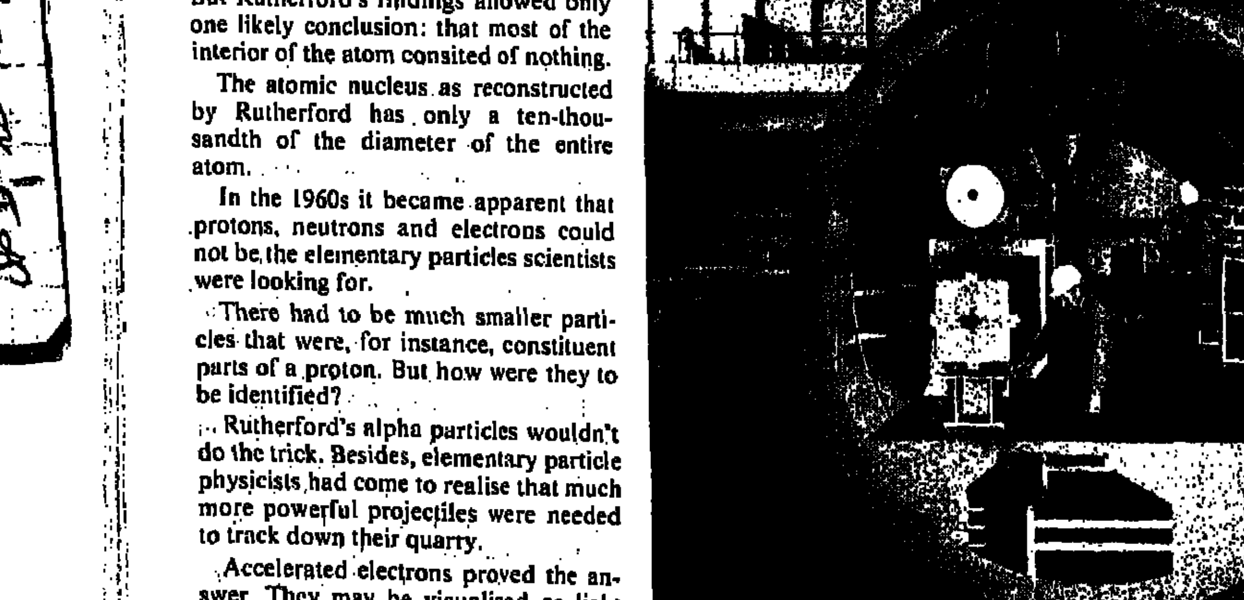
But Hera's main task will be to take a further look at elementary particles and cosmic forces. At present there is no way in which this work can be described as holding forth the prospect of benefits to mankind. It is strictly basic research.

Scientific curiosity is the main consideration, and project scientists are fascinated that particle accelerators are often given women's names.

In Hera's case there may even be further hopes involved. As Zeus's consort she must surely be in a position to ensure that all runs smoothly.

Maybe it is as well to placate the gods!

*Wolfgang Schulz-Braunschmidt*
(Lübecker Nachrichten, 22 January 1984)



**A mock-up of the Hera tunnel** (Photos: DESY)





**■ HEALTH**

# Enzyme experiments to help sterile men

**Frankfurter Rundschau**

Nearly one couple in five in the Federal Republic of Germany have no children because either the man or the woman cannot have them.

Sterility, says Professor Wolf-Bernhard Schill of Munich, is evenly distributed. Either the man or the woman or both are to blame, a third in each case.

So male sterility plays a crucial part in between 40 and 50 per cent of childless marriages.

Professor Schill is looking into ways of helping sterile men in his work at the andrology unit at Munich University's dermatology clinic.

In experiments with kallikrein, an enzyme that liberates kinins from the blood plasma, he has succeeded in making one patient in three fertile again.

The kallikrein-kinin system is still shrouded in partial mystery. Kallikrein is produced by the pancreas and in certain circumstances liberates kinins.

Kinins are inactivated again fairly fast, and the process occurs in genital secretions too, in which it is important in ensuring the mobility of sperm.

Sperm have to be available in sufficient number and quality, but mobility is equally essential. Only fast, powerful swimmers will ever make it to the ovum.

That is why, as Professor Schill explains, speeding them up is a crucial part of treating men for sterility.

A dose of kallikrein seems to do the trick, as he has shown in a double-blind test in which some patients were given a dose of the enzyme, others a placebo, and neither doctor nor patient knew which was which.

These tests are carried out to determine the placebo effect. Many patients are cured by a course of treatment with a harmless substance they think is the real thing.

Professor Schill reports successful treatment of 38 per cent of a total of 90 patients (success being that they and their wives then had children), as against 16 per cent for the placebo group.

All were men whose marriages had been childless because their ejaculate contained too little sperm. Kallikrein was shown to increase both the number and mobility of sperm.

About seven sterile men in 10 are felt by the professor and his staff to be suitable for kallikrein treatment. The remainder need either psychiatric or surgical help or are no-hopers.

The kallikrein administered is taken from pigs. Treatment is particularly promising when between 30 and 50 per cent of the usual sperm count is already available.

Where the count is lover, not even kallikrein seems to do the trick any longer. The patient's metabolism seems to be so damaged that the situation is irreversible.

Kallikrein may also be useful in artificial insemination, which is undertaken much more often when the man is sterile than when the woman is.

Artificial insemination in this case means the wife being given her husband's sperm artificially to offset its lack of mobility.

An admixture of kallikrein may boost the prospects of successful insemination substantially, initial tests indicate.

But trials of many more patients will need to be carried out before the point is proved.

Male sterility, of course, is a matter of mental as well as physical factors. Stress, state of mind and the environment can make the quality of sperm fluctuate strongly.

These factors are why the success rate is so difficult to assess, but the Munich tests have proved once and for all that kallikrein works.

The results are definitely not due to coincidental considerations, such as improved circulation as a result of the course of treatment.

Munich figures give some idea of the likely demand. About 2,000 men a year visit Professor Schill and his staff for help and advice.

They can expect at present to have to wait for up to six months or a year before their first appointment.

Kallikrein has proved so successful that it is generally held to be the most promising medical course of treatment for male infertility.

That is even though the success rate is still fairly low and the way the substance works is still not entirely clarified.

*Dieter Schwab*
(Frankfurter Rundschau, 16 January 1984)



## Police games. What jolly fun!

**Excuse me, madam! This is the real thing! This Nuremberg lady thought these policemen were just going through the motions of a civil defence exercise. But they weren't. A tanker had overturned, spilling nitric acid, which reacted with the oxygen to form a poisonous red cloud of gas. Sixteen people, including six policemen, were taken to hospital and 40 residents evacuated. Back, dear lady!** (Photo: dpa)

# Contraception discovery from a muscle-building substance

Max Planck medics may have discovered a substance that will form the basis of oral contraception — the Pill — for men.

It is an anabolic steroid that has been used for over 20 years to build up muscles in convalescence and taken by athletes for the same purpose.

It is now reported to halt the output of sperm without affecting either libido or the ability to have sexual intercourse.

Initial tests on five men aged 21 to 25 are said by Professor Eberhard Nieschlag, head of the clinical research group on reproductive medicine, Münster, to have been most encouraging.

The substance is 19-nortestosterone, used to build up muscles and to boost the output of red blood corpuscles in cases of anaemia.'

The Max Planck research scientists have merely discovered a hitherto unsuspected side-effect.

In principle the method of contraception is much the same as for women. Two hormones, LH and FSH, have to be suppressed.

In men they and testosterone control the production of sperm in the spermatic duct of the testicles.

In women they control the maturation of the ova and the output of the female sex hormones oestrogen and gestagen.

The Pill for women is based on the fact that the output of FSH and LH is halted by a high level of oestrogen and gestagen in the blood, with the result that the ovum cannot mature.

In principle the same effect could be achieved in men by administering a higher dose of testosterone, but tests have brought a difficulty to light.

Oestrogen by itself cannot cause maturation of the ovum, whereas a higher dose of testosterone can trigger sperm production.

"The effect of this hormone," Professor Nieschlag says, "includes all physical and other characteristics that are considered typically male."

They include muscles, beard and libido and sexual powers.

So Professor Nieschlag looked for a substance that would suppress only the effect of testosterone on sperm output and not affect other functions.

He and his associates have found one in 19-nortestosterone. Its unsuspected fertility impedance has been demonstrated in an initial test lasting several weeks.

The five volunteers were given a weekly injection of the hormone for 13 weeks, the quantity being roughly the same as what top-flight athletes are given.

Before long the FSH and LH and testosterone counts declined drastically and sperm output dwindled.

One of the five produced no more sperm after six weeks. The others were declared infertile after 12 weeks at the latest.

Undesirable side-effects did not occur. Libido and the ability to satisfy it remained unchanged, as did beard growth, volume of ejaculate and general physical well-being.

All five put on weight but attributed that to the intensive muscle training they had undergone during the trial period.

Eighteen weeks after the last jab all were fertile again.

The Münster medics sound a note of caution.

They are looking for a better method of administering the dose. An injection a week is felt to be unsatisfactory as a long-term procedure. *Peter Schmalz*
(Die Welt, 12 January 1984)

# Placebos found to have side effects

Any drug that is effective also has side-effects, medical students have always been taught. So do placebos, it now seems.

Placebos are medicines given to humour or gratify a patient rather than to exercise any physically curative effect. As such they are no longer prescribed by general practitioners.

But they are still indispensable as pharmacologically inactive substances administered as part of the procedure by which new drugs are tested before being allowed on to the market.

Test groups are given the new drug and a control group is given either a placebo or some other standard preparation the effects of which are known.

Professor Uwe Fricke of Cologne University pharmacology department deals with them in an article in the December 1983 issue of *Medizinische Monatsschrift for Pharmazeuten.*

Placebos, he writes, have been found not only to have considerable curative effect. In between 30 and 40 per cent of cases they also have side-effects.

The percentage of side-effects is thus just as high as in the case of bona fide drugs prescribed and administered in the normal way.

Patients undergoing placebo therapy complain particularly often about trouble with the central nervous system such as feelings of numbness, tiredness or headaches.

They also complain about stomach and intestinal trouble.

Their complaints vary in accordance with their illness and the kind of drug imitated. In trials of a new drug to treat depression typical side-effects were reported by both groups.

They happened to be dryness of the mouth and constipation.

Patients have even been found to become addicted to placebos. The only after-effect not yet reported, Professor Fricke writes, is death or anything that might seriously endanger life.

Yet even they are by no means inconceivable. Voodoo rites are known in many cases to have caused death, proving the power of suggestion.

(Der Tagesspiegel, 10 January 1984)

■ BEHAVIOUR

# Government guarantee for homes for battered wives

Kölner Stadt-Anzeiger

The Federal government in Bonn intends making sure that refuges for battered women will not have to close because of lack of finance.

Heiner Geissler, Minister for Family Affairs, gave this assurance at a conference in Bad Godesberg.

There are between 120 and 150 refuges for battered wives and their children (*Frauenhäuser*) in Germany. Several face closure because of cutback in *Land* and local government finance.

It is not so long ago that, when the man of the house was discovered to be having an affair with the maid, that it was the maid who paid the consequences. Hounded out of the house, she had scarcely an alternative to finding refuge with a charity organisation.

Ideas about morals and decency may have changed over the years, but there has been little decisive improvement for women fleeing from the brutality of their husbands.

It became clear at the conference, attended by 300 delegates, that the problems are complex.

Lawyers, policemen, public prosecutors, women judges, teachers and social workers all related experiences. Most were depressing. Irmgard Karwatzki, secretary of state at the Ministry of Youth, Family Affairs and Health, referred to the badly paid work at the *Frauenhäuser* and the need to reform laws concerning the victims of violence. These were the essential parts of the issue.

Stories related by the delegates were varied. They left no doubt that violence against women is a phenomenon that cuts through social classes.

The constantly crowded refuges demonstrate the need for their existence. For many they are the only place to turn to at a time of despair and powerlessness.

Lawyers at the conference spoke strongly about the need to dismantle prejudice and shake up public attitudes towards the problem.

There were various suggestions about what do do. These ranged from the utopian to the practical.

One was to approach the offending men with a view to achieving some sort of cooperation.

Another proposed that special houses be built to incarcerate wife beaters. Another was for concrete changes in criminal codes for things such as rape. Geissler said lawyers should make greater use of the provisions excluding the public from hearings involving rape charges. One delegate who works for an organisation offering emergency help to rape victims in Cologne, said it was wrong to believe that women were usually raped by strangers. Ulrike Teubner said police and justice evidence showed that normally both victim and assailant were known to each other before the crime.

*Marianne Kolarik*

(Kölner Stadt-Anzeiger, 14 January 1984)

# Why do people drive too fast?

DIE WELT

A Cologne psychologist has been working for 10 years to try and discover if motorists can be visually deceived into driving more slowly.

Klaus-Wolfgang Herberg works at the institute for accident research at the Rhineland TÜV, the facility which puts items including cars through technical tests.

Herberg used 60 test people to drive through various streets in Cologne and observations were made to establish how they varied their speed.

The results were not surprising. The more easily observed a street was, the faster the traffic became. The pace increased as soon as the drivers' view became unencumbered.

Herberg warns of a major danger in this. When city streets are laid out in broad, clean, inviting lines, and are bisected by streets with right of way, accidents are almost programmed. Speed builds up and right of way is not expected to be surrendered.

He says that moving factors such as other moving traffic and pedestrians had almost no influence on speed.

He used small groups of children to find out more. Children were arranged to emerge from a school exit in groups of two and three and more.

In cases where groups were larger, about five to eight, speed did slow, but, by four kilometres an hour, not enough.

Traffic rules are clear that motorists must slow when approaching people. But that didn't seem to be what happened at all, says Herberg.

He suggests that to reduce traffic speeds, wide streets should be opened to car parking. This would hem in the streets and produce an optically confused picture. Plants and trees could be used for the same purpose.

But Herberg is not hopeful that anything will be done quickly. He has talked to representatives of local authority departments and says that the conservative attitude predominating was: the car has absolute priority.

*Dieter Thierbach*

(Die Welt, 9 January 1984)

## The fortune that wasn't

**Steelworker and father of six Dieter Ziprath, 43, and his wi[fe] Anni, 41, of Düsseldorf, won DM466,000 in a lottery. Or thought they had. They spent DM66,000 in celebration — and then learned that the winnings should only have been DM1[...] and 20 pfennigs. A computer was blamed. The couple pa[id] back DM400,000. Now a court has ruled that the rest must be paid back too.** (Photo: [...])







## Dogs take to the streets

**About 2,000 dogs were all present but perhaps not correct as they and their owners demonstrated in Hamburg against a rise in dog tax to DM240 a year. Some of the littler dogs made their appearance in shopping baskets as a precaution against their bigger, aggressiver brothers.** (Photo: dpa)

# German courts too gullible, says legal study

German judges are far too uncritical of witnesses, according to a study by a senior judge and a prosecutor.

Professor Rolf Bender, Chief Justice of the Higher Regional Court, and state prosecutor Armin Nack say there are appalling shortcomings in the way facts are established in German courts.

It had been psychologically established that at the most, half of what witnesses said was true. The rest was wrong, either because it was lies or because mistakes were made. Bender, head of department, law faculty, at the University of Constance said that in eight years of training lawyers to become judges, they were taught almost entirely how to find the relevant paragraphs. There was insufficient attention paid to finding out exactly what happened, although in a hearing, the decisive question was: "Was it or wasn't it?" He quoted from an analysis of 1,100 retrials in which 50 convictions for serious and fairly serious crime had been made in the original hearing but where it emerged that witnesses had lied in testifying against the accused. Bender suggests that several thousand wrong decisions a year are probab[ly] made. He says the psychology of cro[ss-]examination and giving evidence shou[ld] be mandatory in legal training.

In 624 cases he investigated, the co[urts] disbelieved witnesses in only three p[er] cent. Many judges appeared not to b[e] aware of the fact that legal questi[ons] were not the main problem in 90 p[er] cent of criminal proceedings and 70 p[er] cent of civil proceedings. Finding o[ut] what happened was the important thi[ng].

Judges who thought they could r[ely] on their experience in dealing with wit[nesses] should remember something o[nce] said by George Bernard Shaw: "M[en] consider experience to be someth[ing] they have been doing wrong for years."

When several witnesses said the sa[me] thing, that was less evidence that t[he] truth was being told than an indica[tion] that, coincidentally or by design, t[he] same story emerged.

Judges should also be careful wh[en] witnesses spoke with any special conv[ic]tion. Investigation had revealed that [in] 100 cases where evidence had be[en] shown to be wrong, 70 per cent involv[ed] evidence given in this way.

He criticised the fact that there w[as] little literature for judges on the subj[ect] of cross-examination techniques and t[he] psychology of giving evidence.

One standard work said that judg[es] should draw conclusions based o[n a] rich experience of life plus a pinch [of] clairvoyance.

This approach, he said, would not [be] necessary if witnesses were put [to] tougher tests over their credibility.

Bender and Nack have compiled a [ca]talogue of guidelines designed to h[elp] judges to decide the value of evidence.

*Peter Henk[...]*

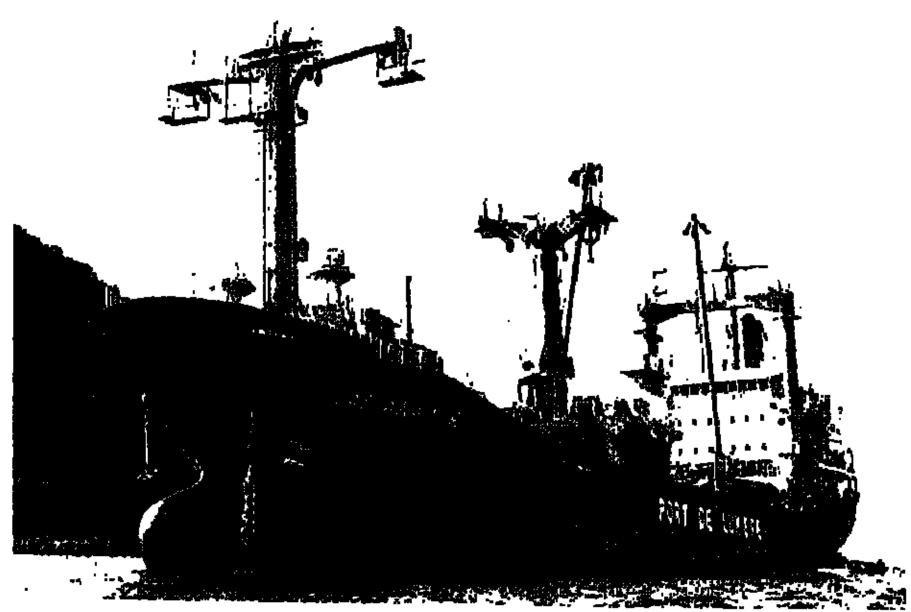
(Frankfurter Rundschau, 12 Januar[y ...])

■ MODERN LIVING

# Spirit of a mercy ship lives on

**The name *Cap Anamur* captured German imagination as the ship that plyed the South China Sea looking for boat people, refugees from Vietnam. Between 1979 and September last year, it rescued 9507. It pulled them out of the clutches of a hostile world and gave them a future. But not any more. The *Cap Anamur* has been sold. It is now a freighter on the Africa run. Why? One reason is lack of cash support. Another is German entry permits. Enough aren't being issued to warrant bringing another boatload in.**





**Rupert Neudeck and the *Cap Anamur* . . . battles against bureaucracy.**

(Photos: Süddeutscher Verlag, Hans Windeck)

The ship has gone, but the name lives on. A new organisation has been founded to carry on with medical missions in various parts of the world.

*Deutsche Notärzte eV Komitee Cap Anamur* has deliberately been so named to capitalise on the public recognition won by the exploits of the ship.

One of the founders of the original group which set off with the *Cap Anamur* in 1979 is Rupert Neudeck.

Neudeck is a battler. He has turned down an award for his work with the ship and the refugees. He thinks that rather than pick out one person for mention, the State should act.

That means making another 100 places available for Vietnamese refugees and mounting air and sea searches for more.

Neudeck is far too polite to suggest it, but the simple award of a decoration would have let the politicians off too lightly.

The new organisation has a few dozen activists. It also has many backers including some from widely different political beliefs: Heinrich Böll, for example, an author known for his left-wing views, and journalist Matthias Walden, a conservative columnist on the staff of *Die Welt*.

It has changed its area of action to Africa. Its last South China Sea operation is a one-man job: medical student and male nurse Winfried Rüger has been flying four hours each day on sorties in a chartered Cessna to look out for more refugee boats.

He wants at least to be able to alert commercial shipping to the fact if there is anyone to rescue.

The new *Cap Anamur* team is involved in a hospital project in Uganda. Naseke is about 50 miles from Kampala in an area troubled by guerrillas where the people live by their wits and are always ready to flee with their belongings at the first sign of trouble.

Jacques Freers, a doctor with the team described the initial reaction as they first arrived. The hospital appeared to be in gave the impression of being in superb condition.

The picture was rudely shattered as they got closer: "The sight was appalling. It was filthy, the buildings had been ransacked. Parts had been vandalised.

"There was no power, no running water, installations had been torn out, washbasins smashed, electric wiring ripped out, fuse boxes gutted. There was nothing left of what once was a wonderful operating theatre."

The water situation remained dreadful because there was only one water hole and it contained only muddy green water.

Eventually the team of five — Doctor Freers, plus one nurse, one male nurse and two technical workers — managed to get the hospital working again provisionally.

The suffering of the people was touching even for those who were used to deprivation. There were children with tropical ulcers as big as the palm of a hand eating away at body and extremities.

The ulcers thrived on bodies weak from under-nourishment but could be treated by cleaning out the wound daily.

Extreme misery, say the team, had made the children even forget how to cry. And the adults were tortured so often that it had become routine. Torture was torture. It didn't matter whether it was carried out by government troops or by guerrillas.

So far the organisation has 35 doctors at various spots in Chad, Somalia and Ethiopia. Ghana is next on the list.

A big operation was mounted in Abeche, in Chad, one of the poorest countries in the world. Abeche has a hospital financed by the EEC and built 10 years ago by an international consortium.

But it stopped operating during the civil war and had not been functioning for some years.

Workers for the *Deutsche Notärzte eV Komitee Cap Anamur* worked virtually round the clock to get it back in order.

That was a typical effort where only excessive demands placed by members of the team on themselves could bring results. There is no thought of financial reward. All that is provided is free board and lodging. Lodging might be a rough bed with others in a tent.

Money is a constant problem. It comes from donations and, if things go well, from the Foreign Office out of a an emergency source called *Fehlbedarfsfinanzierungsfond*.

There is often haggling: it was of great importance to get a bank account number that people could remember. They eventually managed to get a/c No. 2222222 with the Cologne city savings bank.

The group doesn't have employees. It is basically opposed to bureacracies. Yet it is often a major paper war to get contributions in.

That is a major role of Neudeck, who is a journalist with the radio station *Deutschlandfunk*. He was once a left winger but has long since stopped concerning himself with individual political parties.

His battles are instead against procrastination. One example is the effort to get new Vietnam ship project off the ground.

So the Chancellor's Office was approached. The reply came back. The Chancellor had taken an interest. There was no doubt that the project was of great human and moral significance. The request would be forwarded to the competent authority.

And nothing more was heard of that.

*Gerd Kröncke*

(Süddeutsche Zeitung, 30 December 1983)

# US air force helps young cancer victim

The American air force has played a part in giving a 16-year-old German boy new hope for life.

Stefan (only his first name has been released for publication) from the town of Hoppstädten, in south Germany, has leukaemia.

The only way it can be fought is by transplanting bone marrow. That means finding someone with not only the same blood group but also identical or almost identical blood characteristics.

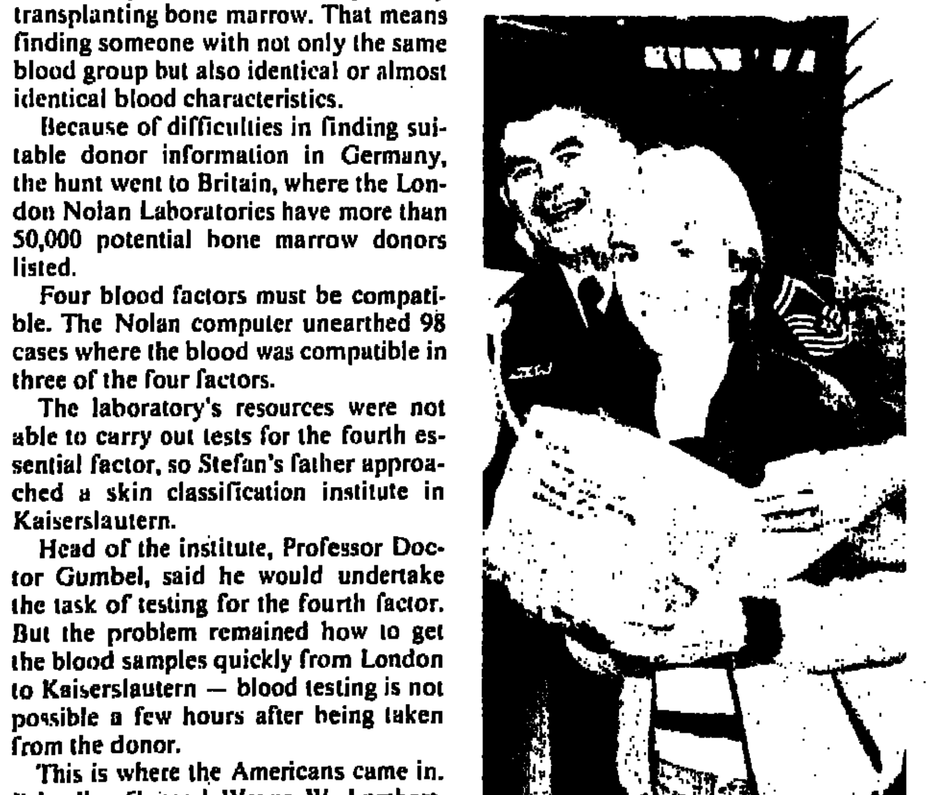
Because of difficulties in finding suitable donor information in Germany, the hunt went to Britain, where the London Nolan Laboratories have more than 50,000 potential bone marrow donors listed.

Four blood factors must be compatible. The Nolan computer unearthed 98 cases where the blood was compatible in three of the four factors.

The laboratory's resources were not able to carry out tests for the fourth essential factor, so Stefan's father approached a skin classification institute in Kaiserslautern.

Head of the institute, Professor Doctor Gumbel, said he would undertake the task of testing for the fourth factor. But the problem remained how to get the blood samples quickly from London to Kaiserslautern — blood testing is not possible a few hours after being taken from the donor.

This is where the Americans came in. Brigadier General Wayne W. Lambert, commander of the 7th air division at Ramstein, offered to help.



**A good deed . . . Chief Master Sergeant Pfauntsch with Stefan.** (Photo: AP)

The division regularly runs a courier aircraft to Britain and back and the operation was geared up.

But the first effort almost came a cropper. Everything was set to go when it was realised that the courier would not fly that day — it was Thanksgiving Day, November 24.

But all was not lost. In stepped Chief Master Sergeant Maximilian Pfauntsch, a member of the air division staff, to demonstrate the organising ability of his outfit.

He arranged for the blood samples to brought by Lufthansa to Frankfurt, where they were picked up by a 7th air division aircraft and brought to Ramstein.

Since then, the courier aircraft has been bringing samples direct to Ramstein where they are taken to Kaiserslautern in the on-going process of elimination in the effort to find the blood with the fourth compatible factor.

There seems to be luck in the latest run. All three samples appear to be almost identical to Stefan's blood.

When the matching process is completed, Stefan will go to New York for the operation. A technique has been developed there to perform the operation where the blood characteristics are not absolutely identical.

A German Luftwaffe aircraft will be made available to take Stefan to Washington, the Americans say. But General Lambert is trying to arrange a better connection straight to New York.

*Uwe-Peter Grieger*

(Saarbrücker Zeitung, 11 January 1983)